an rf transmitter disposed in the housing and coupled to the plurality of conductive contacts for transmitting data obtained using the electrochemical sensor.

46. (Amended) A sensor assembly, comprising:

a sensor comprising a flexible substrate with at least one working electrode, at least one counter electrode, and at least one contact pad coupled to each of the working and counter electrodes; and

a sensor control unit comprising

a housing adapted for placement on skin;

a plurality of conductive contacts disposed on the housing and configured for coupling to the contact pads of the sensor; and

an rf transmitter disposed in the housing and coupled to the plurality of conductive contacts for transmitting data obtained using the sensor.

52. (Amended) An analyte monitoring system comprising:

a sensor comprising at least one working electrode and at least one contact pad coupled to the at least one working electrode;

the sensor control unit of claim 1; and

a display unit comprising an rf receiver for receiving data from the sensor control unit, and a display coupled to the rf receiver for displaying an indication of the level of an analyte.

41. 39,

~~54~~. (Amended) The analyte monitoring system of claim ~~52~~, wherein the sensor control unit further comprises an rf receiver disposed in the housing and the display unit further comprises an rf transmitter for transmitting to the rf receiver of the sensor control unit.

42. 39,

~~55~~. (Amended) The analyte monitoring system of claim ~~52~~, wherein the display unit further comprises an analyzer coupled to the display and the rf receiver for analyzing data from the rf receiver and providing analyzed data to the display.

67. 66,
80. (Amended) The analyte monitoring system of claim 79, wherein the [one or more physiological characteristics] patient-specific data comprises a response to a treatment.

70. 66,
83. (Amended) The analyte monitoring system of claim 79, wherein the processing circuit is configured to determine a drug administration protocol in response to the [physiological characteristic] patient-specific data.

71. 66,
84. (Amended) The analyte monitoring system of claim 79, wherein the [physiological characteristic] patient-specific data is a dosage dependence of a response to a drug.

80. 39,
113. (Amended) A method for monitoring a level of an analyte using the analyte monitoring system of claim 52, the method comprising:

inserting the sensor into skin of a patient;

attaching the sensor control unit to the skin of the patient;

coupling a plurality of conductive contacts disposed in the sensor control unit to a plurality of contact pads disposed on the sensor;

collecting data, using the sensor control unit, regarding a level of an analyte from signals generated by the sensor;

transmitting the collected data to the display unit using the rf transmitter of the sensor control unit; and

displaying an indication of the level of the analyte on the display of the display unit.

Please add claims 121-127.

SUB B4

121. (New) An analyte monitoring system comprising:

(a) a sensor comprising at least one working electrode and at least one contact pad coupled to the at least one working electrode;

(b) a sensor control unit comprising,

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(i) a housing adapted for placement on skin and adapted to receive a portion of an electrochemical sensor having a plurality of contact pads;

(ii) a plurality of conductive contacts disposed on the housing and configured for coupling to the plurality of contact pads on the electrochemical sensor; and

(iii) a transmitter disposed in the housing and coupled to the plurality of conductive contacts for transmitting data obtained using the electrochemical sensor; and

(c) a display unit comprising a receiver for receiving data from the sensor control unit, and a display coupled to the receiver for displaying an indication of the level of an analyte, wherein the transmitter of the sensor control unit and the receiver of the display unit are capable of transmitting and receiving data when separated by a distance of two meters.

122. (Amended) A sensor control unit comprising:

a housing adapted for placement on skin and adapted to receive a portion of an independent electrochemical sensor having at least one contact pad;

at least one conductive contact configured for coupling to the at least one contact pad on the independent electrochemical sensor; and

a transmitter disposed in the housing and coupled to the at least one conductive contact for transmitting data obtained using the independent electrochemical sensor.

123. (New) A method for monitoring a level of an analyte using the analyte monitoring system of claim 52, the method comprising:

inserting the sensor into skin of a patient;

attaching the sensor control unit to the skin of the patient;

coupling a plurality of conductive contacts disposed in the sensor control unit to a plurality of contact pads disposed on the sensor;

collecting data, using the sensor control unit, regarding a level of an analyte from signals generated by the sensor;

transmitting the collected data to the display unit using the rf transmitter of the sensor control unit;

displaying an indication of the level of the analyte on the display of the display unit; and replacing the sensor with a new sensor after a period of use.

91. 74,
124. (New) The analyte monitoring system of claim 87, wherein the analyte monitoring system if configured and arranged to determine a temperature near the sensor using two electrodes of the sensor.

92. 39,
125. (New) The analyte monitoring system of claim 52, wherein the sensor further comprises an enzyme non-leachably disposed on the at least one working electrode.

93 39,
126. (New) The analyte monitoring system of claim 52, wherein the working electrode comprises a mixture of conductive material and an analyte-responsive enzyme.

94. 39,
127. (New) The analyte monitoring system of claim 52, wherein the sensor further comprises a mass transport limiting membrane disposed over the working electrode, the mass transport limiting member maintaining a rate of permeation of the analyte through the mass transport limiting membrane with a variation of no more than 3% per °C at temperatures ranging from 30°C to 40°C.

Remarks

This Amendment is submitted in response to the Office Action dated March 17, 1999. Claims 121-127 have been added, claims 1, 46, 52, 54, 55, 80, 83, 84, and 113 have been amended, and claims 94-112 have been canceled without prejudice. Accordingly, claims 1-93 and 113-127 are presently pending. No new matter has been added. Support for the amendments is found in the drawings and the specification.

Restriction Requirement

Restriction of the claims was required. The claims were separated in the following groups:

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